



61-2

National Park Service,  
Yellowstone Park,  
Wyoming.









REPORT OF  
THE ACTING SUPERINTENDENT OF THE  
YELLOWSTONE NATIONAL PARK

TO THE  
SECRETARY OF THE INTERIOR

1913







REPORT OF  
THE ACTING SUPERINTENDENT OF THE  
YELLOWSTONE NATIONAL PARK

TO THE

SECRETARY OF THE INTERIOR

1913



## CONTENTS.

---

	Page.
General statement.....	3
Travel.....	3
Improvements by concessioners.....	5
Steam gauging.....	5
Summary of stream-gauging work, June to September, 1913.....	6
Roads.....	7
Fish.....	9
Wild animals.....	10
Antelope.....	10
Deer.....	11
Elk.....	11
Moose.....	12
Buffalo.....	12
Wild herd.....	12
Tame herd.....	12
Bear.....	12
Coyotes.....	13
Mountain sheep.....	13
Other animals.....	13
Protection of animals.....	13
Trails.....	13
Forest fires.....	13
Sanitation.....	14
Change in regulations.....	14
Concessions.....	14
Recommendations.....	17
Rules and regulations.....	18
Regulations approved May 27, 1911.....	18.
Instructions approved Feb. 28, 1912.....	19

## ILLUSTRATION.

---

Map of Yellowstone National Park.....	Facing p. 21
---------------------------------------	--------------

# REPORT OF THE ACTING SUPERINTENDENT OF THE YELLOWSTONE NATIONAL PARK

---

DEPARTMENT OF THE INTERIOR,  
YELLOWSTONE NATIONAL PARK,  
OFFICE OF SUPERINTENDENT,  
*Yellowstone Park, Wyo., October 15, 1913.*

SIR: I have the honor to submit annual report of the condition of affairs in and the management of the Yellowstone National Park from October 1, 1912, to the present date.

## GENERAL STATEMENT.

The Yellowstone National Park, set aside by act of March 1, 1872 (secs. 2474 and 2475, R. S., 17 Stat., 32), is located in the States of Wyoming, Montana, and Idaho. It has an area of about 2,142,720 acres and an average altitude of about 8,000 feet.

The military force available for duty in the park consists of one squadron of Cavalry and a machine-gun platoon containing the normal quota of officers and an enlisted strength increased by 75 men. The headquarters is located at Fort Yellowstone, but the command also garrisons 15 soldier stations scattered throughout the park, requiring 200 men during the tourist season and from 75 to 100 during the remainder of the year.

A telephone system connects the soldier stations and the post.

In addition to the military force which is maintained by the War Department, the Interior Department furnishes certain civilian employees, namely a clerk, scouts, a buffalo keeper, etc.

The work of the detachments of soldiers at the 15 soldier stations was well done. The tourists spoke in the highest terms of the courteous treatment received and of the neat and soldierly bearing of the men at all times. Commissioned officers were constantly on duty in those parts of the park most visited by tourists during the season and several visits were made to the stations during the winter months.

## TRAVEL.

The roads were in fairly good condition at the opening of the season, except between the lake and the east boundary, and the thumb of the lake and the south boundary, and these were almost impassable. All of the roads have been improved since the opening of the season, but they are all far from suitable park roads.

The aggregate number of persons making park trips during the season of 1913 was as follows:

*Travel during the season of 1913.*

Yellowstone Park Transportation Co., entering via northern entrance---	5,923
Monida & Yellowstone Stage Co., entering via western entrance-----	5,760
Holm Transportation Co., entering via eastern entrance-----	323
Others at hotels, traveling with private or Government transportation, bicyclers, foot travelers, etc-----	53
Total hotel travel-----	12,059
Wylie Permanent Camping Co.:	
Entering via northern entrance-----	2,413
Entering via western entrance-----	3,989
Entering via eastern entrance-----	193
	6,595
Shaw & Powell Camping Co.:	
Entering via northern entrance-----	1,807
Entering via western entrance-----	619
	2,426
With other licensees of personally conducted camping parties-----	522
Making park trips with private transportation as camping parties-----	3,080
Total number making park trips-----	24,682
Number making short trips with special licensees-----	247
Grand total of travel, season of 1913-----	24,929

The Yellowstone Park Boat Co. reports that 4,205 passengers took the boat trip across Yellowstone Lake during the season, of which 1,860 were traveling with the Yellowstone Park Transportation Co., 1,345 with the Monida & Yellowstone Stage Co., 765 with the Wylie Permanent Camping Co., 178 with Shaw & Powell Camping Co., and 57 miscellaneous.

*Travel by the different entrances.*

From the north, via Gardiner, Mont-----	11,294
From the west, via Yellowstone, Mont-----	11,907
From the south, via Jackson Hole-----	417
From the east, via Cody, Wyo-----	1,311
Total-----	24,929

The Wylie Permanent Camping Co. had 128 vehicles in use during the season, in connection with its transportation business and maintenance of permanent camps in the park, the Shaw & Powell Camping Co. used 85 wagons in transportation of passengers and maintenance of permanent camps, and, in addition to these, special licenses were issued during the season for conducting movable camping outfits covering the use of 65 wagons and 228 saddle and pack animals and for 8 wagons for special livery work.

The Monida & Yellowstone Stage Co. reports that 778 passengers made the trip from Canyon to Mammoth via Mount Washburn and Tower Falls during the season in its vehicles, and many others made this trip with other companies and with licensees of personally conducted camping parties, showing a gratifying increase of the

travel over the road, from which is enjoyed a view of the most beautiful scenery in the park.

### IMPROVEMENTS BY CONCESSIONERS.

The Yellowstone Park Hotel Co. completed a new wing to the hotel at Mammoth Hot Springs, increasing its capacity by 124 fine guest rooms, and including 28 private baths and 8 public baths.

This company has a crew of men at work enlarging Old Faithful Inn, at Upper Geyser Basin, where increased facilities for caring for tourists are much needed. Over 100 rooms will be added to this already large hotel.

The Wylie Permanent Camping Co. established a new camp near the eastern entrance of the park for the accommodation of such of its tourists as enter via the Cody route, abandoning the site near Sylvan Lake that was in use during the season of 1912.

The Shaw & Powell Camping Co. was authorized to establish permanent camps in the park, and has operated such camps at Willow Creek, near Gibbon Falls, on Nez Perce Creek near Fountain Station, Upper Geyser Basin, West Thumb of Lake, Grand Canyon, and near Tower Falls. Buildings such as kitchen, dining room, storehouse, laundry, wagon sheds, stables, blacksmith shop, granary, bathhouse, etc., were authorized, and many of these have been built during the summer or are now in process of construction.

Messrs. Henderson and Lyall sold their concession for a post-office store at Mammoth Hot Springs, with approval of the department, to Mr. George Whittaker, who was appointed postmaster to succeed Mr. Alexander Lyall. Mr. Whittaker has made considerable improvement in fixtures and internal arrangement of his store and contemplates enlarging and improving the building in the near future.

On the night of September 10 an outbuilding located just back of the curio shop owned by Mesdames Pryor and Trischman and used by them as a laundry and storeroom was destroyed by fire, caused probably by defective wiring. A plain frame building to take its place is in process of construction.

The old log house located in Clematis Gulch near the Mammoth Hot Springs, which was built by James McCartney before the park was withdrawn from settlement and has been used in late years as a Chinese laundry, caught fire on December 4, 1912, and was completely destroyed.

### STREAM GAUGING.

On March 19, 1913, the department instructed the acting superintendent of the Yellowstone National Park to cooperate, as far as possible without interfering with the regular administration of the park, with the water-resources branch of the United States Geological Survey in the matter of the collection of data in regard to the flow of streams in the park. At the same time Mr. G. Clyde Baldwin, district engineer of the water-resources branch, with headquarters at Boise, Idaho, was instructed by the survey to take the subject up with the acting superintendent and to cooperate with him.



Mr. Baldwin has recently made a report relative to this subject, as follows:

SUMMARY OF STREAM-GAUGING WORK, JUNE TO SEPTEMBER, 1913.<sup>1</sup>

*Stations established.*—Four gauging stations were established within the park during the month of June, as follows:

Madison River near Yellowstone, Mont.

Gibbon River at Wylie Lunch Station near Yellowstone, Mont.

Yellowstone River above Upper Falls near Yellowstone Park, Wyo.

South Fork Snake River at south boundary Yellowstone National Park.

Vertical staff gauges were installed at the three first-mentioned stations and an overhanging chain gauge at the station on South Fork Snake River. All four gauges are supplied with cast bronze faces graduated to feet and tenths. Three of the stations are located within a very short distance of a regular soldier or guard station, thus making it possible for the soldiers detailed to these stations to make daily gauge readings with very little loss of time and without interfering seriously with their other duties. The fourth station, namely, the one on Gibbon River, is located immediately below the highway bridge at the so-called Terrace Road crossing. The gauge has been read daily during the summer by an employee of the Wylie Co., and during the winter readings can be secured each time the road patrol passes this point. This, I understand, will be about two or three times each week.

*Methods.*—The methods employed in carrying on this work are described in detail in the water-supply papers of the United States Geological Survey. In brief, they consist in securing a sufficient number of actual current meter measurements at different stages of flow to define a satisfactory rating curve or curves for each station. Daily gauge readings are made and recorded by a local observer, and when the rating curves are satisfactorily developed the discharge for each day is determined by applying the gauge height for that day to the rating curve applicable for that period. Where actual measurements are secured at relatively infrequent intervals the accuracy of the above-described methods depends very largely upon whether or not the relation between gauge height and discharge remains constant. Great care is taken in selecting the location of each gauge in order, if possible, to secure this constant relation or permanent condition.

*Results.*—Rating curves have been developed for the range of stage covered by daily gauge readings at the station on Madison River and also for the original gauge at the station on Gibbon River. On August 30 the original gauge at the Gibbon station, together with the bridge abutment to which it was attached, was removed by the United States Army Engineer Corps and a new bridge was constructed. This construction work changed the relation between gauge height and discharge and made it necessary to establish a new gauge at a slightly different location. A rating has not yet been developed for the new gauge.

*Cooperation.*—Daily gauge readings have been furnished by the soldiers detailed to stations adjacent to the location of four gauges.

<sup>1</sup> By G. Clyde Baldwin.

These readings have been made in accordance with instructions to the soldiers issued by the superintendent of Yellowstone National Park. In addition, the superintendent of the park has furnished transportation within the park boundaries to survey hydrographers who have visited the different gauging stations for the purpose of securing current meter measurements. In one or two instances, also, where hotel accommodations were not readily procurable, survey hydrographers have been furnished lodging at the soldier stations free of cost. Two trips of this character have been made during 1913. All other expenses incident to this work have been paid from funds of the United States Geological Survey.

*Future work.*—The scope of future stream-gauging work within the park is dependent directly upon the appropriation made available. It is hoped that sufficient funds will be allotted to permit the purchase and installation of cable and car equipments at the Yellowstone and South Fork Snake River stations, as these installations are necessary before the stations can be satisfactorily rated for high stages. A Friez type automatic water-stage register has been secured and is now stored at the Canyon Soldier Station. It was not possible to install this gauge during the present season, but if the allotment is sufficient it will be installed and housed in a substantial and attractive manner during the year 1914. In addition to this new construction work, in order to maintain the stations already established in such a way as to secure first-class records, it will be desirable to secure a larger number of current meter measurements during the next calendar year.

The installation of additional stations on other park streams is undoubtedly desirable and will probably be undertaken if the appropriation is large enough to warrant the expansion. It is believed that quality rather than quantity of records is to be desired, however, and, in consequence, an attempt will be made to provide for securing first-class records at the existing stations before new ones are established.

### ROADS.

The sundry civil bill, approved June 23, 1913, appropriated for maintenance and repair of improvements \$125,000, including not to exceed \$15,000 for maintenance of the road in the forest reserve, leading out of the park from the east boundary, and not to exceed \$5,000 for maintenance of the road in the forest reserves leading out of the park from the south boundary, to be expended by and under the direction of the Secretary of War.

For widening and improving surface of roads, and for building bridges and culverts from the belt line road to the western border, from the Thumb Station to the southern border, and from the Lake Hotel Station to the eastern border, all within Yellowstone National Park, to make such roads suitable and safe for animal-drawn and motor propelled vehicles, \$75,000.

This work is in charge of Capt. C. H. Knight, United States Engineer Corps, who has furnished the following notes on the work under his department since the date of my last report:

In the fall of 1912 the work of widening, grading, and surfacing of the west approach road was continued until November 8, when the weather became too severe to continue work in that vicinity. This

crew, consisting of 35 men and 14 teams, moved to The Mammoth Hot Springs—Gardiner road, where the work consisted of widening and graveling road, and cutting off points on sharp curves; this work was suspended on December 10, 1913.

Three hundred linear feet of rock masonry retaining wall laid in cement mortar was completed along the Gardiner River near the 3-mile post from Gardiner.

Numerous earth slides on the road in Gardiner Canyon were removed.

A grader crew shaped up the roads and opened the ditches around the belt line in October, in order to prevent excessive washouts by melting snow in the spring.

All out-door work was suspended on December 10, on account of the severe weather. The removal of occasional earth slides, and the construction of water and oil storage tanks was continued throughout the winter at Mammoth Hot Springs.

Road work recommenced on April 3, 1913, in Gardiner Canyon. During the present season 100 feet of rock masonry retaining wall laid in cement mortar was completed along the Gardiner River, and 200 feet of rubble retaining wall along the Gibbon River, where the old wall failed.

Two crews were engaged in widening and repairing road and bridges in the forest reserve east of the park, and one crew in the forest reserve south of the park.

The original estimate for improving the west, south, and east approaches within the park was given in Senate Document No. 871, Sixty-second Congress, second session. The total for the three approaches was \$340,700. The sundry civil act of August 24, 1912, appropriated \$77,000, and that of June 23, 1913, appropriated \$75,000 to be spent in improving these entrances, leaving a total of \$188,700 still to be appropriated before the entire work is provided for. The total disbursements for this work to September 30, 1913, approximated \$85,000, and the improvement of the roads was about one-fourth completed.

The work on the west entrance road to September 30, 1913, consisted in the widening of 8 miles of road to 25 feet and graveling of this distance to provide subsurface, and the widening of 9 miles to about 18 feet preparatory to final widening to 25 feet. This gives a partially improved road to the belt line junction 10 miles south of Norris Geyser Basin. The Firehole River branch has not been improved. Of the 3 miles of this road about  $1\frac{1}{2}$  will be relocated. Surveys for this relocation are completed, and the construction work on the roadbed will be completed during the summer of 1914. Contracts for two bridges on the west road have been let, and bridges will be in place at the beginning of the next tourist season. With a continuance of present appropriation, the entire west entrance road will be widened to 25 feet by the end of the 1914 working season, but the improvement of the road will not be finished until several years later.

The work on the east entrance road to September 30, 1913, consisted in general widening of the most narrow and dangerous portions to 18 feet, which will be the completed width of the road. Complete or partial widening was done on 20 miles of the 28 miles of this road. Local road material was placed on the road in a num-



ber of places to provide foundation. A finished road was started from the east entrance of the park during the first part of September, 1913, and several miles will be completed during the present season in case weather conditions permit.

The work on the south entrance road was of comparatively minor character and consisted mainly in clearing off the roadway preparatory to widening to 18 feet, the replacement of culverts, and repair of bridges. None of the roads will be in a safe and suitable condition next season for animal-drawn and motor-propelled vehicles.

Maintenance and repair work to roads, bridges, and culverts, and sprinkling of 100 miles of roads was continued throughout the season on the belt line, Mount Washburn, and Cooke City roads.

Contracts were let for one 40-foot steel arch bridge on the Gibbon River, one 80-foot and one 67-foot concrete bridge over the Gibbon River, one 65-foot and one 40-foot concrete bridge over the Firehole River, all to be completed this fall. Contract was also let for a 200-foot concrete arch bridge at the Canyon, to be completed next year. Work has been commenced on two of the concrete bridges, and the abutments of the steel bridge are practically completed.

All the steel bridges in the park and the Engineer Department buildings are being repainted.

Four log barns and two log cabins were built at permanent camps during the season, and a wagon shed 136 by 25 feet was completed at Mammoth Hot Springs.

The construction of reinforced concrete arch culverts at Spring Creek and at the canyon is being begun.

The Secretary of the Interior, Hon. Franklin K. Lane, and the assistant to the Secretary, Mr. Adolph C. Miller, visited the Yellowstone National Park from July 30 to August 3, 1913. They were impressed with the excellence of the road and bridge systems laid out by Gen. Hiram M. Chittenden while engineer officer in charge of the work, and especially with the road from the canyon to the top of Mount Washburn. The Secretary decided that the valuable work of Gen. Chittenden was worthy of recognition, and, on motion of Mr. Miller, announced that hereafter the road from the Canyon Junction to the top of Mount Washburn be known as "Chittenden Road," and directed the acting superintendent to make that fact of record and cause suitable sign posts to be erected.

#### FISH.

The Department of Commerce made considerable improvements to its plant in the Park. A hatchery building 34 by 60 feet was constructed of hewed logs, shingled over to present an attractive appearance, on the site near the outlet of Yellowstone Lake selected and approved by the department last year. This building is furnished with modern equipment. The loft was finished and used during the past season as quarters for the employees and will be available for storage use after other contemplated buildings are constructed. This building furnishes room for apparatus with a capacity for eyeing 30,000,000 eggs. A small dam was built across the creek about 400 feet upstream from it, and water supply for the work is drawn from this pond through a 12-inch wooden stave pipe.

Under the authority of the department of August 6, 1913, a building 14 by 30 feet, with ell in the rear 10 by 12 feet, was built at

Clear Creek. This building was made from timber cut on the ground, finished with drop siding, and is used for mess house and quarters for the employees engaged in taking fish spawn from Clear and Cub Creeks. As yet no building has been constructed at Columbine Creek.

Mr. W. T. Thompson, superintendent of the United States hatchery at Bozeman, Mont., who also has charge of this subhatchery in the park, informs me that for some unexplained reason the run of fish was much smaller than for two seasons past, and that the number of eggs taken was also below the average proportional to the number of fish, though the quality was unexcelled.

A total of 7,446,060 eggs of the black-spotted trout were secured, from which 6,886,360 eyed eggs were shipped to various National and State hatcheries in Wyoming. South Dakota, Montana, Idaho, Colorado, and Oregon, and smaller consignments were forwarded to the New York Aquarium at Battery Park and the Detroit Aquarium for educational purposes, and probably for later use in stocking suitable waters. The balance secured were planted in park waters as follows: Jones Creek, 8,000; Crow Creek, 12,000; Middle Creek, 15,000; Sylvan Lake, 22,800; Eleanor Lake, 28,500; Pelican Creek, 25,000, and Clear Creek, 12,000.

Mr. Thompson also had 22,500 brook trout (*fontinalis*) fingerlings shipped to the park from the Bozeman hatchery, and these were planted, one-half in Glen Creek and the balance in Blacktail Deer Creek, to replenish these streams, that are convenient to the road and are therefore sometimes depleted.

The workings of the Fish Commission in the park is a matter of considerable interest to tourists, and is the most important point for collection of eggs of the black-spotted trout in the world.

### WILD ANIMALS.

The winter conditions for wild game were again excellent. With plenty of grass, and the snow remaining soft so they could paw through it to get food, the elk, deer, antelope, and mountain sheep wintered well and with but little loss.

### ANTELOPE.

The herd of antelope is in good condition and has increased slightly, but was more or less restless during the winter and had to be driven back into the park frequently from down the Yellowstone Valley. These were fed from the hay cut on the field near the entrance arch, but as usual their feeding was interfered with more or less by the large herds of elk. A new 7-foot Page woven-wire fence is now being constructed for about 4 miles west from Gardiner on the park line, to take the place of the old one, which was inadequate, and it is believed that this fence will hold them entirely inside the park, preventing much loss and saving much of the work of driving them back across the line. The supply of hay was fed out, and owing to a late severe storm last spring it was necessary to purchase about 6 tons additional from a near-by ranch.

Two crops of excellent alfalfa hay were cut on the field during the past summer, aggregating about 105 tons, for use during the coming winter.

## DEER.

Both the black-tailed and white-tailed deer are apparently thriving. While the black-tailed deer were not seen in large herds during the past year, during the winter they were noted in small numbers scattered for many miles along the northern boundary just inside of the park line. No apparent change in numbers of the white-tailed species, which ranges almost entirely along the Gardiner River near Fort Yellowstone, has been noted. A scarcity of large males of both varieties has been noticed during the past two years.

## ELK.

A census of elk in and along the north line of the park was taken between April 9 and May 1. The count showed 32,229, after having shipped 738, as noted below, making a total of 32,967, or an increase of 2,866 over the number found by the count of April, 1912. The elk were in excellent condition all winter, and but few dead ones were found. Of 337 dead elk noted by the men making the count, 90 per cent were yearlings.<sup>11</sup>

During December, January, February, and March, 538 elk were captured in the park near the northern entrance and shipped by freight for stocking public parks and ranges as follows: Eighty (2 carloads of 40 each) to Kings County, Wash.; 50 (2 carloads of 25 each) to Yakima County, Wash.; 40 (1 carload) to Garfield County, Wash.; 50 (2 carloads of 25 each) to Shasta County, Cal.; 50 (2 carloads of 25 each) to Pennsylvania for Clinton and Clearfield counties; 50 (2 carloads of 25 each) to West Virginia; 80 (2 carloads of 40 each) to Arizona; 25 (1 carload) to Hot Springs, Va.; 3 to City Park, Aberdeen, S. Dak.; 4 by express (crated) to the City Park at Boston, Mass.; 6 by express (crated) to the City Park at Spokane, Wash. One hundred were captured and shipped under direction of the Department of Agriculture, of which 25 went to Sundance, Wyo.; 25 to Estes Park, Colo.; 25 to Walla Walla, Wash.; and 25 to points in Utah. The cost of capture and loading on board the cars at Gardiner was \$5 per head, which was paid by the States and parks receiving the elk. The loss in capturing and up to time of delivery at their destination was but 22 animals out of 538 shipped. During the same period the game wardens of the State of Montana captured 200 elk just outside of the park line and shipped them to points in the State where it is desirable to restock them. They reported a loss of about 3 per cent in capturing and shipping. I can see no reason why from 500 to 1,000 elk can not be spared from this herd each year if desired. The experiment of the past two years in capturing and shipping them has surely proven successful.

In addition to the public benefits secured through shipment of elk, the overflow from the herd into the adjoining States insures good hunting during the open season, although much of the territory immediately adjoining the park has been set aside as game preserves by the States of Wyoming and Montana. Hunters were fairly successful west of the park in Montana last fall, but the slaughter of the preceding year on Cravice Mountain just at the end of the open season was not repeated.



**MOOSE.**

Moose have been seen frequently in their regular haunts by scouts, patrols, and others. They have usually been reported in good condition.

**BUFFALO.****WILD HERD.**

No accurate count of the wild herd of buffalo was made, but scattering bands of them have been seen, and one party on patrol reports having seen 7 calves with a herd at a distance. It is believed that there has been some increase.

**TAME HERD.**

This herd now consists of 162 animals, 81 of each, male and female. In February 2 old bulls that had become dangerous to life had to be disposed of, and under authority of the department they were killed, and the skin and skeleton of one was shipped to the National Museum at Washington, D. C., and the other was sold as a specimen for mounting to Baker University, of Baldwin, Kans. In June, two 2-year-old bulls were donated to the Department of Agriculture to assist in stocking the new bison preserve at Niobrara, Nebr. The latter part of June, 1 very old cow, 1 yearling cow, and 2 yearling bulls were found dead in the field, doubtless from the effects of eating a poison weed (larkspur) that happened to be abundant in that section at the time. The carcasses had been badly torn up by coyotes, but such bones as could be saved were shipped to the National Museum for specimens. During the summer 27 calves have been born, of which 15 are males and 12 are females.

The 24 calves born in 1912 were too young to vaccinate against hemorrhagic septicemia when the herd was treated in June. The veterinarian of the Department of Agriculture therefore returned to the park on November 12 for this purpose, and finished the job on November 27. There has been no indication of a reappearance of this very fatal disease. Fourteen of the old bulls were brought in to Mammoth Hot Springs on June 13, where they were held during the summer so that they could be seen by tourists. They were returned to the main herd on September 22. The main herd has been kept out on the range daily in charge of a herder, and will be so long as the weather will permit. About 200 tons of excellent hay was cut at the buffalo farm on Lamar River for use of the herd during the winter.

At least three-fourths of the number of bulls on hand could be dispensed with to the advantage of the balance of the herd.

**BEAR.**

Both black and grizzly bears are plentiful. Thirty-two grizzlies were noted at one time on the garbage dumps at the canyon on August 20. During the summer it has been necessary to have five killed that had become dangerous to life and a menace to property. Attempts were made to save the robes for the National or other

museums, but in only one instance was this attempt successful, owing to lack of immediate facilities for saving the skins in hot weather. The one saved was sent to the National Museum at Washington, D. C.

Bears have been captured and shipped alive for public parks as follows: October 25, 1912, a female grizzly to the Zoological Society of St. Louis, Mo.; July 31, 1913, a female grizzly with two cubs to the City Park at Atlanta, Ga.; September 14, 1913, a female grizzly to the park commissioners at Spokane, Wash.

These shipments were all made under department authority, at no expense to the Government.

#### COYOTES.

One hundred and fifty-four coyotes were destroyed by shooting, poisoning, and trapping during the past year. They are quite numerous and destructive of other game.

#### MOUNTAIN SHEEP.

The mountain sheep are apparently holding their own. They are very tame and during the winter are seen daily along the road in Gardiner Canyon, where they are fed hay. Considerable numbers have been reported at various points outside of the park along the northern boundary. Two that were about to die from an apparent disease (possibly sheep scab) were killed in February, and the entire carcasses burned to prevent possible spread of the disease.

#### OTHER ANIMALS.

Beaver are found in great abundance in practically every stream in the park. Mountain lions, foxes, lynx, otter, and many of the smaller varieties of fur-bearing animals are quite numerous. Many varieties of waterfowl and song birds are found.

#### PROTECTION OF ANIMALS.

But few evidences of attempted poaching have been found. The lines adjoining hunting territory are closely watched during the open season in Montana, Wyoming, and Idaho, and there are but few hunters who care to take any risk by crowding the park line, and when they do get over it is usually through ignorance of the whereabouts of the line.

#### TRAILS.

Fifty-eight miles of new fire lanes or trails have been constructed along the western boundary line and from Gallatin Station to Headquarters via Sportsman Lake. In addition to acting as fire lanes, these passageways greatly facilitate important patrolling.

#### FOREST FIRES.

The cooperative agreement entered into on August 14, 1912, between the Interior, Agricultural, and War Departments for the

prevention and suppression of forest fires along the park boundary, has been carried into effect. Caches of fire-fighting tools have been made, districts assigned to the various stations nearest the border, and a perfect understanding maintained between the soldiers at these stations and the forest rangers. Fortunately there has been much rainfall and little dry weather during the summer, and as no fires of any importance occurred, there has been no necessity for calling for assistance from either side of the line.

### SANITATION.

The experiment of last summer of keeping two men with a team and wagon constantly on the move around the park, cleaning up camping grounds and other débris, and looking after the earth closets that are maintained for the use of the public, resulted in such a marked improvement that it was repeated during the past summer, with very satisfactory results. One additional set of closets was provided at Norris Basin.

The question of sanitation and stream pollution is a very important one, which must be met by some general plan in the near future, as park travel increases. Mr. R. B. Dole, department chemist, made a very thorough sanitary inspection, but his report has not yet been received.

### CHANGE IN REGULATIONS.

The regulation prohibiting the use of automobiles in the park was so amended as to allow their use on the road leading from Bozeman, Mont., to the southern portion of Gallatin County, Mont., but, due to the condition of the road, as yet no attempt has been made to make this trip in an automobile.

### CONCESSIONS.

*Concessioners holding privileges for a year or more in Yellowstone National Park, under existing contracts, with rentals and usage tax exacted.*

Yellowstone Park Hotel Co.: Contracts (two) dated February 26, 1913, run for period of 20 years, and grant to company right to use certain land in the park and erect and maintain thereon hotels and necessary buildings connected therewith.

Annual rental: \$40 per acre on 29.43 acres, \$1,177.20. Usage tax 1913: 25 cents per capita on guests during 1912 season, \$2,700.25.

Yellowstone Park Transportation Co.: Contract dated February 26, 1913, runs for period of 20 years, and authorizes company to establish and maintain a stage and transportation line, and agrees to lease necessary land at eight designated sites on which to construct and maintain buildings required for accommodation of stock, carriages, employees, etc.

Annual rental: \$40 per acre on 27.16 acres, \$1,086.40. Usage tax 1913: 25 cents per capita on passengers carried during 1912 season, \$1,348.

Yellowstone Park Boat Co.: Contract dated February 7, 1913, runs for 10 years, and grants to company privilege of maintaining, operating, and conducting on Yellowstone Lake, and such other park lakes as may be designated, motor boats and launches, motor vessels, rowboats, and dories for accommodation of tourists, with right to sell and rent fishing tackle, and sell fruits, nuts, confectionery, books, periodicals, cigars, tobacco, and camping supplies, and lease or sell bathing suits. Contract agrees to lease lands on shores Yel-



lowstone Lake on which wharves and ways are constructed, and at other points to be agreed upon on which to erect buildings for storage of equipment, accommodation of employees, etc.

Compensation for boat privilege, \$100 per annum. Annual rental for land used (approximately 2 acres), \$80.

Wylie Permanent Camping Co.: Contract of May 4, 1906, runs for 10 years from March 31, 1906, and grants transportation privilege in park, with sites for maintenance of permanent camps therein, and right to conduct lunch stations at points near Gibbon River and West Thumb of Yellowstone Lake.

Annual rental: \$10 per wagon (not less than 50 to be used) on 128 wagons used during 1913 season, \$1,280. Usage tax 1913: 50 cents per capita on passengers carried during 1912 season, \$2,870.25.

Shaw & Powell Camping Co.: Special permanent camping license issued to company April 19, 1913, and running for a period of one year from May 1, 1913, or until such time as it may be revoked, authorizes it to maintain, conduct, and carry on the business of transporting tourists in and through the park, and provide for their accommodation at permanent camps to be established on sites at designated points in the reservation, and to maintain a lunch station on Madison River between the present Wylie camp and the State line.

Annual rental: \$10 on each wagon used (75 passenger and 10 freight wagons used 1913 season), \$850. Usage tax 1913: 25 cents per capita on passengers carried during 1912 season, \$377.25.

Holm Transportation Co.: Contract entered into March 14, 1913, with company for the period of one year from and after March 31, 1913, authorizes the establishment and maintenance of a stage and transportation line in the park, with the right to use and occupy such parcels of land as may be necessary at or near designated points therein on which to construct and maintain suitable buildings and inclosures for accommodating stock, carriages, and employees.

Annual rental: \$40 per acre on approximately 1.79 acres, \$71.60. Usage tax 1913: 25 cents per capita on passengers carried during the 1913 park season, \$80.75.

George Whittaker: Contract dated March 13, 1913, for period of 10 years, grants use of 24,000 square feet of land at or near Mammoth Hot Springs, with privilege of maintaining a dwelling, store, and post office.

Annual charge, \$100. Usage tax 1913, \$800 per annum. Total, \$900.

Monida & Yellowstone Stage Co.: Contract of March 31, 1906, running for period of 10 years, grants to company privilege of establishing and maintaining stage and transportation line in the park, and lease of same date, and running for like period of time, authorizes use of land at eight different sites in the reservation, aggregating 11 acres, on which to construct and maintain buildings for accommodation of stock, carriages, and employees. Supplemental lease of July 29, 1912, running for 3 years and 10 months, authorizes use of additional land at Tower Falls, on the Mount Washburn Road, comprising 2 acres, as a relay station and for stable purposes.

Annual rental, \$40 per acre on 13 acres, a total of \$520. Usage tax 1913: 25 cents per capita on passengers carried during 1912 park season, \$1,253.50. A total of \$1,773.50.

This contract canceled September 20, 1913, for violation by the contractor of provisions of article 18 of the contract.

Pryor & Trischman: Contract dated August 26, 1908, running for period of 8 years, from April 3, 1908, issued to George R. and Anna K. Pryor, interest of former transferred to Elizabeth Trischman through assignment approved by Department of the Interior, October 29, 1912, grants use of tract of land near Mammoth Hot Springs in park, containing 13,800 square feet, on which to maintain dwelling, store, and soda fountain.

Annual rental, \$50; usage tax of \$115 per annum. Total, \$165.

Henry E. Klamer: Contract of January 31, 1908, for period of 10 years beginning June 1, 1907, authorizes use of 2-acre tract of land at or near Upper Geyser Basin, with privilege of maintaining thereon building or buildings for use as dwelling and conduct of a general store.

Annual rental, \$100; usage tax, \$1,200 per annum. Total, \$1,300.

F. Jay Haynes: Contracts (two) dated June 1, 1904, each running for 10 years from March 31, 1904, authorize use of 0.64 acre of land at Mammoth Hot Springs and 1 acre at or near Upper Geyser Basin, with privilege of maintaining thereon buildings for the preparation and sale of photographic views.

Annual rental, \$60; usage tax, \$850 per annum. Total, \$910.

*Personally conducted camping party and special licenses issued in the Yellowstone National Park during the season of 1913.*

ENTERING AT GARDINER OR NORTHERN ENTRANCE.

Name of licensee.	License No.	Usage tax (25 cents per capita passengers carried 1912 season).		Amount paid special licenses issued.	Number of wagons at \$10 each.	Number of horses at \$2 each.	Total paid.
		Number carried.	Paid.				
Howard Eaton.....	3, 4, 46, 47	64	\$16.00	.....	6	75	\$226.00
S. E. & J. Larsen.....	{ 10, 11, 34, 12..... }	22	5.50	{ 1 \$25.00 1 wagon }	3	11	82.50
H. P. Grant, Fred Dissley, and A. Lycan.....	19	23	5.75	.....	5	.....	55.75
E. L. Robertson.....	21	.....	.....	{ 1 25.00 1 wagon }	.....	.....	25.00
W. B. Shore & C. Gilbert.....	22, 23, 37	.....	.....	.....	2	10	40.00
Newcomb & Ryerson.....	24, 25, 39	.....	.....	.....	2	5	30.00
W. N. & O. M. Hefferlin.....	26, 27	114	28.50	.....	8	2	112.50
H. Sexton.....	28	.....	.....	{ 1 25.00 1 wagon }	.....	.....	25.00
H. W. Lloyd.....	29	.....	.....	{ 2 30.00 1 wagon }	.....	.....	30.00
Jno. T. Gilbert.....	35	.....	.....	{ 2 15.00 1 wagon }	.....	.....	15.00
Dave Rhode.....	44, 45	.....	.....	.....	1	4	18.00
Total.....	.....	223	55.75	120.00	27	107	659.75

ENTERING AT NORTHERN AND WESTERN ENTRANCES.

B. D. Sheffield.....	20	34	\$8.50	.....	3	.....	\$38.50
O. & A. L. Roseborough.....	32, 33	54	13.50	.....	7	2	87.50
Total.....	.....	88	22.00	.....	10	2	126.00

ENTERING AT CODY OR EASTERN ENTRANCE.

W. H. Jordan.....	1, 2, 36	3	\$0.75	.....	4	2	\$44.75
R. W. Crane.....	6, 7, 48, 49	.....	.....	.....	3	9	48.00
N. E. Brown.....	{ 13, 14, 30, 31..... }	50	12.50	.....	6	35	142.50
Frost & Richard.....	{ 15, 16, 38, 43..... }	273	68.25	.....	7	29	196.25
P. Kelly.....	17, 18	6	1.50	.....	3	2	35.50
J. E. McLaughlin.....	40, 41	5	1.25	.....	2	3	27.25
Joe E. Jones.....	42	.....	.....	.....	.....	23	46.00
F. Morris.....	50, 51	11	2.75	.....	3	14	60.75
Total.....	.....	348	87.00	.....	28	117	601.00

ENTERING AT SOUTHERN OR SNAKE RIVER ENTRANCE.

Chas. C. Moore.....	52, 53	32	\$8.00	.....	3	27	\$92.00
---------------------	--------	----	--------	-------	---	----	---------

ENTERING AT WESTERN OR YELLOWSTONE ENTRANCE.

Joe Clause.....	8, 9	15	\$3.75	.....	3	2	\$37.75
-----------------	------	----	--------	-------	---	---	---------



## SUMMARY. (ALL PARK ENTRANCES.)

Park entrance.	Usage tax, 25 per cent per capita passengers carried season 1912.		Amount paid special licenses issued.	Number of wagons at \$10 each.	Number of horses at \$2 each.	Total paid.
	Number carried.	Paid.				
Licenses entering at northern entrance, and at both northern and western entrances combined.....	311	\$77.75	12 \$120.00	37	109	\$785.75
Licenses entering at eastern entrance.....	348	87.00	.....	28	117	601.00
Licenses entering at southern entrance....	32	8.00	.....	3	27	92.00
Licenses entering at western entrance....	15	3.75	.....	3	2	37.75
Total.....	706	176.50	120.00	71	255	1,516.50

<sup>1</sup> Special licenses issued for conducting passengers on short one-day trips into park from Gardiner, Mont., to Mammoth Hot Springs, vicinity and return.

<sup>2</sup> Special licenses issued for carrying of passengers and small express packages to parties operating mail routes between Gardiner and Yellowstone Park, Mont., and Gardiner and Cooke, Mont.

## RECOMMENDATIONS.

It is recommended that an amendment be secured to section 4 of the act of Congress approved May 7, 1894, "to protect the birds and animals in Yellowstone National Park, and to punish crimes in said park, and for other purposes," making the term of imprisonment prescribed therein to read "not exceeding one year" instead of "not exceeding two years."

This change in the law is necessary by reason of the fact that the Attorney General in a letter dated June 5, 1913, to the United States attorney for Wyoming said:

Since the act to which you refer (Comp. Stat. U. S. 1901, vol. 2, pp. 1562-1563) authorized a punishment of imprisonment not exceeding two years, offenses under it are clearly crimes within the meaning of the Constitution of the United States, and must, therefore, be prosecuted by indictment in the regular way. (See *Parkinson v. United States*, 121 U. S., 281; *Callan v. Wilson*, 127 U. S., 540, 551, 552, 556; *Schick v. United States*, 195 U. S., 65, 68.)

It is true that the Yellowstone Park act evidently intends this offense to be dealt with as a misdemeanor, to be tried and punished as such by the Commissioner of Yellowstone Park, but Congress can not deprive an accused of his rights secured to him under the Constitution, and if the offense is one, as it is in this case, which may be punished by a term in the penitentiary, it ceases to be such a petty offense as may be proceeded with by information or by way of punishment by a commissioner. The authorities cited above are conclusive upon this point.

This holding vitiates the jurisdiction of the park commissioner as to final disposition of such cases and increases the cost of the prosecution thereof at least tenfold, as it necessitates the holding of all violators of the act of May 7, 1894, to the United States district court at Cheyenne, Wyo.

Very respectfully,

LLOYD M. BRETT,  
Lieutenant Colonel, First Cavalry,  
Acting Superintendent.

The SECRETARY OF THE INTERIOR.

## RULES AND REGULATIONS.

REGULATIONS APPROVED MAY 27, 1911.

The following rules and regulations for the government of the Yellowstone National Park are hereby established and made public pursuant to authority conferred by section 2475, Revised Statutes, United States and the act of Congress approved May 7, 1894:

1. It is forbidden to remove or injure the sediments or incrustations around the geysers, hot springs, or steam vents; or to deface the same by written inscriptions or otherwise; or to throw any substance into the springs or geyser vents; or to injure or disturb in any manner or to carry off any of the mineral deposits, specimens, natural curiosities, or wonders within the park.

2. It is forbidden to ride or drive upon any of the geyser or hot-spring formations, or to turn stock loose to graze in their vicinity.

3. It is forbidden to cut or injure any growing timber. Camping parties will be allowed to use dead or fallen timber for fuel. When felling timber for fuel, or for building purposes when duly authorized, stumps must not be left higher than 12 inches from the ground.

4. Fires shall be lighted only when necessary, and completely extinguished when not longer required. The utmost care must be exercised at all times to avoid setting fire to the timber and grass.

5. Hunting or killing, wounding, or capturing any bird or wild animal, except dangerous animals when necessary to prevent them from destroying life or inflicting an injury, is prohibited. The outfits, including guns, traps, teams, horses, or means of transportation used by persons engaged in hunting, killing, trapping, ensnaring, or capturing such birds or wild animals, or in possession of game killed in the park under other circumstances than prescribed above, will be forfeited to the United States, except in cases where it is shown by satisfactory evidence that the outfit is not the property of the person or persons violating this regulation, and the actual owner thereof was not a party to such violation. Firearms will only be permitted in the park on written permission from the superintendent thereof. On arrival at the first station of the park, guard parties having firearms, traps, nets, seines, or explosives will turn them over to the sergeant in charge of the station, taking his receipt for them. They will be returned to the owners on leaving the park.

6. Fishing with nets, seines, traps, or by the use of drugs or explosives, or in any other way than with hook and line is prohibited. Fishing for purposes of merchandise or profit is forbidden. Fishing may be prohibited by order of the superintendent of the park in any of the waters of the park, or limited therein to any specified season of the year, until otherwise ordered by the Secretary of the Interior.

7. No person will be permitted to reside permanently or to engage in any business in the park without permission, in writing, from the Department of the Interior. The superintendent may grant authority to competent persons to act as guides and revoke the same in his discretion, and no pack trains shall be allowed in the park unless in charge of a duly registered guide.

8. The herding or grazing of loose stock or cattle of any kind within the park, as well as the driving of such stock or cattle over the roads

of the park, is strictly forbidden, except in such cases where authority therefor is granted by the Secretary of the Interior. It is forbidden to cut hay within the boundaries of the park excepting for the use of the wild game and such other purposes as may be authorized by the Secretary of the Interior or the park superintendent.

9. No drinking saloon or barroom will be permitted within the limits of the park.

10. Private notices or advertisements shall not be posted or displayed within the park, except such as may be necessary for the convenience and guidance of the public, upon buildings on leased ground.

11. Persons who render themselves obnoxious by disorderly conduct or bad behavior, or who violate any of the foregoing rules, will be summarily removed from the park and will not be allowed to return without permission, in writing, from the Secretary of the Interior or the superintendent of the park.

12. It is forbidden to carve or write names or other things on any of the mileposts or signboards or any of the platforms, seats, railings, steps, or any structures or any tree in the park.

Any person who violates any of the foregoing regulations will be deemed guilty of a misdemeanor, and be subjected to a fine as provided by the act of Congress approved May 7, 1894, "to protect the birds and animals in Yellowstone National Park and to punish crimes in said park, and for other purposes," of not more than \$1,000, or imprisonment not exceeding two years, or both, and be adjudged to pay all costs of the proceedings.

#### INSTRUCTIONS APPROVED FEBRUARY 28, 1912.

1. The feeding, interference with, or molestation of any bear or other wild animal in the park in any way by any person not authorized by the superintendent is prohibited.

2. *Fires*.—The greatest care must be exercised to insure the complete extinction of all camp fires before they are abandoned. All ashes and unburned bits of wood must, when practicable, be thoroughly soaked with water. Where fires are built in the neighborhood of decayed logs, particular attention must be directed to the extinguishment of fires in the decaying mold. Fire may be extinguished where water is not available by a complete covering of earth, well packed down.

Especial care should be taken that no lighted match, cigar, or cigarette is dropped in any grass, twigs, leaves, or tree mold.

3. *Camps*.—No camp will be made at a less distance than 100 feet from any traveled road. Blankets, clothing, hammocks, or any other article liable to frighten teams must not be hung at a nearer distance than this to the road. The same rule applies to temporary stops, such as for feeding horses or for taking luncheon.

Many successive parties camp on the same sites during the season, and camp grounds must be thoroughly cleaned before they are abandoned. Tin cans must be flattened and, with bottles, cast-off clothing, and all other débris, must be deposited in a pit provided for the purpose. When camps are made in unusual places, where pits may not be provided, all refuse must be hidden where it will not be offensive to the eye.



4. *Bicycles*.—The greatest care must be exercised by persons using bicycles. On meeting a team the rider must stop and stand at side of road between the bicycle and the team—the outer side of the road if on a grade or curve. In passing a team from the rear the rider should learn from the driver if his horses are liable to frighten, in which case the driver should halt and the rider dismount and walk past, keeping between the bicycle and the team.

5. *Fishing*.—All fish less than 8 inches in length should at once be returned to the water with the least damage possible to the fish. Fish that are to be retained must be at once killed by a blow on the back of the head or by thrusting a knife or other sharp instrument into the head. No person shall catch more than 20 fish in one day.

6. *Dogs*.—Dogs are not permitted in the park.

7. *Grazing animals*.—Only animals actually in use for purposes of transportation through the park may be grazed in the vicinity of the camps. They will not be allowed to run over any of the formations nor near to any of the geysers or hot springs; neither will they be allowed to run loose within 100 feet of the roads.

8. *Formations*.—No person will be allowed on any formations after sunset without a guide.

9. *Hotels*.—All tourists traveling with the authorized transportation companies, whether holding hotel coupons or paying cash, are allowed the privilege of extending their visit in the park at any of the hotels without extra charge for transportation. However, 24 hours' notice must be given to the managers of the transportation companies for reservations in other coaches.

10. *Driving on roads of park*.—(a) Drivers of vehicles of any description, when overtaken by other vehicles traveling at a faster rate of speed, shall, if requested to do so, turn out and give the latter free and unobstructed passageway.

(b) Vehicles in passing each other must give full half of the roadway. This applies to freight outfits as well as any other.

(c) Racing on the park roads is strictly prohibited.

(d) Freight, baggage, and heavy camping outfits on sidehill grades throughout the park will take the outer side of the road while being passed by passenger vehicles in either direction.

(e) In making a temporary halt on the road for any purpose all teams and vehicles will be pulled to one side of the road far enough to leave a free and unobstructed passageway. No stops on the road for luncheon or for camp purposes will be permitted.

(f) In rounding sharp curves on the roads, like that in the Golden Gate Canyon, where the view ahead is completely cut off, drivers will slow down to a walk. Traveling at night is prohibited except in cases of emergency.

(g) Transportation companies, freight and wood contractors, and all other parties and persons using the park roads will be held liable for violation of these instructions.

(h) Pack trains will be required to follow trails whenever practicable. During the tourist season, when traveling on the road and vehicles carrying passengers are met, or such vehicles overtake pack trains, the pack train must move off the road not less than 100 feet and await the passage of the vehicle.

(i) During the tourist season pack animals, loose animals, or saddle horses, except those ridden by duly authorized persons on







patrol or other public duties, are not permitted on the coach road between Gardiner and Fort Yellowstone.

(*k*) Riding at a gait faster than a slow trot on the plateaus near the hotels where tourists and other persons are accustomed to walk is prohibited.

(*l*) Mounted men on meeting a passenger team on a grade will halt on the outer side until the team passes. When approaching a passenger team from the rear, warning must be given, and no faster gait will be taken than is necessary to make the passage, and if on a grade the passage will be on the outer side. A passenger team must not be passed on a dangerous grade.

(*m*) All wagons used in hauling heavy freight over the park roads must have tires not less than 4 inches in width. This order does not apply to express freight hauled in light spring wagons with single teams.

11. *Liquors*.—All beer, wine, liquors, whisky, etc., brought into the Yellowstone National Park via Gardiner to be carried over the roads through the reservation to Cooke City must be in sealed containers or packages, which must not be broken in transit.

12. *Miscellaneous*.—Automobiles are not permitted in the park.<sup>1</sup> Persons are not allowed to bathe near any of the regularly traveled roads in the park without suitable bathing clothes.

13. *Penalty*.—The penalty for disregard of these instructions is summary ejection from the park.

*Notices*.—(*a*) Boat trip on Yellowstone Lake: The excursion boat on Yellowstone Lake plying between the Lake Hotel and the Thumb lunch station at the West Bay is not a part of the regular transportation of the park, and an extra charge is made by the boat company for this service.

(*b*) Side trips in park: Information relative to side trips in the park and the cost thereof can be procured from those authorized to transport passengers through or to provide for camping parties in the park; also at the office of the superintendent.

(*c*) All complaints by tourists and others as to service, etc., rendered in the reservation should be made to the superintendent in writing.

---

<sup>1</sup> See note on p. 14 for subsequent regulation regarding automobiles.















